

Global Pharmaceutical Policy Research

U.S. life expectancy at birth is now a record 78 years, according to recent CDC figures, trailing behind Japan's stunning 82 years, but enormously better than the 40 year life expectancy in Swaziland or 59 years in Cambodia. Under-5 mortality, a robust indicator of child health, tells the same story: the U.S. achieved a rate of 8 deaths/1000 live births, compared to 164/1000 in Swaziland or 82/1000 in Cambodia. Such staggering inequality is attributable to forces as varied as drought, civil strife, and the HIV epidemic. But the lack of affordable access to life-saving medicines also contributes. Barriers to affordable access include not only poverty and lack of insurance coverage, but ineffective government policies, health system inefficiencies, perverse financial incentives, and lack of transparent and unbiased information. The DACP Global Pharmaceutical Policy group seeks to narrow the gap between industrialized and developing countries by designing, testing, and disseminating effective strategies to improve the way medicines are prescribed, dispensed, and used in resource-poor settings.

In the late 1980's, Dennis Ross-Degnan and a small group of colleagues from the U.S., Europe, Africa, and Asia established the [International Network for Rational Use of Drugs \(INRUD\)](#),^{1,2} to test strategies for improving access to and use of medicines in the developing world. INRUD began with a shared vision to shape the global medicines agenda – by creating practical tools and metrics, articulating a systematic process for studying behavior change, building research capacity, testing practical approaches, stimulating collaboration across institutions and borders, and engaging policy makers in evidence-based discourse. Since then, INRUD and the coalitions it helped to create have been central in driving global pharmaceutical policy. DPRG faculty have played a key role throughout in providing technical support, training, methods development, applied research and advocacy. Recognizing this long engagement, the WHO in 2003 named the DPRG and their close colleagues at the Boston University Center for International Health and Development as a joint [WHO Collaborating Center in Pharmaceutical Policy](#).³

Under the umbrella of the WHO Collaborating Center, DPRG faculty members engage in a broad range of activities in research and training related to improving the use of medicines focusing on the needs and issues in low and middle income countries.

I.CORE PROGRAMS

a. Applied research and technical assistance: The core activity for the WHO Collaborating Center is technical support in the design, development, and implementation of intervention or policy research studies. The portfolio of DPRG-supported intervention research studies in recent years has spanned every setting where patients obtain medicines, including private physicians, public health centers, district and teaching hospitals, private drug shops, insurance systems, and entire communities. Since over 80% of medicines in most low and middle income countries are purchased out of pocket, the Global Pharmaceutical Policy Group currently focuses major attention on expanding medicines coverage within insurance systems. DACP faculty founded and lead the global [Medicines and Insurance Coverage \(MedIC\) Initiative](#),⁴ which works with emerging insurance systems in Africa, Asia, and Latin America on evidence-based policy development and applied policy research in their member populations using routine systems

data. For example, in the Philippines, Anita Wagner, Dennis Ross-Degnan, and colleagues are developing a randomized policy trial with the National Health Insurance Corporation to test the feasibility and efficacy of implementing an outpatient medicines benefit, targeting hypertension. The Global Pharmaceutical Policy Group also plays a central role in shaping the strategy and impact evaluation of the [Medicines Transparency Alliance](#),⁵ another major pharmaceutical initiative just emerging on the global stage.

b. Methods development: With its international partners, the DPRG has developed many applied methods for measuring aspects of medicines use or intervention impacts in settings where data are difficult to obtain. For example, DPRG faculty led the development of the methodology for the groundbreaking 1993 INRUD manual [How to Investigate Drug Use in Health Facilities](#),⁶ which has been the basis for hundreds of published studies globally. The DPRG is currently working with WHO and Health Action International to develop and validate a methodology for [Measuring Medicines Prices](#)⁷ that has now been applied in over 50 surveys in 34 countries. The DPRG also currently leads technical development in the [INRUD Initiative on Antiretroviral Adherence](#),² a project that is developing practical systems-based approaches to measure and improve patient adherence to antiretroviral medicines in five countries in East Africa.

c. Global information exchange: Promoting open sharing of information about improving use of medicines has been a hallmark of the WHO Collaborating Center. As examples, since 1989 the DPRG has maintained the [INRUD Bibliography](#),⁸ a key global resource for information about medicines that currently contains nearly 8000 citations. The two landmark [International Conferences on Improving Use of Medicines \(ICIUM 1997 and 2004\)](#),⁹ for which Dennis Ross-Degnan and Anita Wagner were the primary scientific organizers, brought together leading national and international policy makers, program managers, and researchers to produce state-of-the-art consensus on the effectiveness of interventions to improve medicine use in low and middle income countries, and to identify global research agendas to fill gaps in knowledge.

d. Educational programs. The Global Pharmaceutical Policy group has designed several innovative and highly successful educational initiatives which are described more fully in the teaching section of this report.

II. IMPACT

The work of the Global Pharmaceutical Policy group has had far-reaching impacts: through the research and advocacy activities of the 26 national INRUD groups; through mentorship of innumerable researchers and policymakers undertaking activities to improve use of medicines; through its leadership of the two ICIUM conferences that resulted in systemization of global knowledge about strategies for improving use of medicines; and through its work in defining global standards for data collection, indicators, and monitoring.

III. PROGRAM COMPOSITION AND SUPPORT

The Global Pharmaceutical Policy group is led by Drs. Ross-Degnan and Wagner; other DACP faculty involved in global medicines activities include Drs. Madden, Wharam, Vialle-Valentin, and Zhang. The group has national and international collaborators from a wide network of

organizations including the World Health Organization, Boston University, Management Sciences for Health, Karolinska Institute, and Harvard School of Public Health. During the past 5 years, the group has hosted international research fellows from Australia, China, Korea, Mexico, Philippines, Switzerland, and Thailand. Since 2003, global medicines projects have received over \$1.2 million of funding from a variety of sponsors including the German Technical Assistance Agency, the Harvard China Fund, Health Action International, the UK Department for International Development, the US Agency for International Development, the Swedish Agency for International Development, and the World Health Organization.

IV. FUTURE DIRECTIONS

The long-term objectives of the Global Pharmaceutical Policy research group are to continue to work with multiple partners to generate knowledge about how to expand affordable access to needed medicines. Despite two decades of progress, much remains to be accomplished. Human resources are scarce in low and middle income countries, with a critical need for academics who can conduct high quality research and policy makers who can use research evidence for policy development. Our near-term objective is to work with international donors and research sponsors to secure additional funding for the Medicines and Insurance Coverage Initiative and other high priority programs, and to expand DPRG faculty capacity to fulfill this important mission.

¹ Ross-Degnan D, Laing R, Quick J, Ali HM, Ofori-Adjei D, Salako L, Santoso B. A strategy for promoting improved pharmaceutical use: The International Network for Rational Use of Drugs. *Soc. Sci. Med.* 1992; 35(1): 1329-1341.

² For information on the International Network for Rational Use of Drugs and its portfolio of activities, see <<http://www.inrud.org>>

³ For information on the WHO Collaborating Center for Pharmaceutical Policy, see <<http://www.whoccpp.org>>

⁴ More information about the Medicines and Insurance Coverage Initiative appears on the WHO Collaborating Center website at <<http://whoccpp.org/research/medic.asp>>.

⁵ Description of MeTA can be found at <<http://www.dfidhealthrc.org/MeTA/index.html>>

⁶ INRUD and WHO Action Programme on Essential Drugs. How to investigate drug use in health facilities: selected drug use indicators. (DAP Research Series N°7. WHO/DAP/93.1) World Health Organization; Geneva: 1993.

⁷ Medicine Prices Project Working Group. Medicine prices: A new approach to measurement. (WHO/EDM/PAR/2003.2) Geneva; World Health Organization: 2003.

⁸ INRUD Bibliography is searchable on-line at <<http://www.inrud.org>>

⁹ All presentations from both International Conferences on Improving Use of Medicines are available in electronic format at <http://www/icium.org> or on the WHO website at <<http://mednet3.who.int/icium/>>